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FOREST INSECT CONTROL

MEMORANDUM CONCERNING THE SAN JACINTO PROJECT

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BERKELEY, CALIFORNIA
NOVEMBER 14, 1930

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FOREST INSECT SURVEY

PRELIMINARY CONSIDERATIONS FOR SAN JACINTO PROJECT

by

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Cruise Data

Physical conditions within the area made it impossible to utilize the strip-cruise method of spotting infested trees. Topographic spotting methods were employed, each tree spotted was visited, and 42 trees were marked. The list accompanying this report gives the necessary information concerning each tree, and the map shows their approximate location.

The infestation is predominantly one of the western pine beetle (Dendroctonus brevicomis Lec.), which has attacked trees throughout the area. Four groups of trees were found in which there had been a rapid increase in the vigor of attack during the past season. Two of these groups (trees numbered 30-2 to 30-7 and 30-32 to 30-36 inclusive) were on the slopes above the valley. It is apparent that these groups show a trend toward the epidemic conditions that have been found to exist in several forested areas in southern California this past season. The other two groups were found in inhabited portions of the valley, and are probably the result of carelessness in disposing of unbarked poles or in cutting trees to make room for buildings. In general the conditions of the western pine beetle infestation appear to be those of a slightly less than endemic infestation in those portions of the area that have been subjected to a partial program of sanitation by the cleaning up of dead and some insect-infested trees in wood-cutting activities. The infestation is heavier and has tended to increase outside the areas of habitation or on areas in which no sanitary measures have been practised.

The losses due to attacks by flat-headed borers are slight, but show a more or less marked grouping on the poorer sites. The tendency of these insects to kill a tree by attacks during successive seasons, and then to attack other trees in the near vicinity until a small group of dead trees results, is marked.

Although Jeffrey pine is present in the area, no Jeffrey pine beetle infestations were found. The mountain pine beetle was found to have killed several sugar pines during the 1929 season, but no trees containing a 1930 brood could be found. The fir engraver beetle caused some injury to white fir in 1930, but the injury apparently is less than that suffered in many of the fir stands in California.

Recommendations

When the values represented by the timber cover of this recreational area are considered, there is no question but that a program of maintenance control should be followed to reduce the losses from endemic infestations and to provide a means of checking incipient epidemics in the future.

In the list of insect-infested trees that accompanies this memorandum, recommendations are made concerning the disposal of the trees. The location of the tree and accessibility--both as regards treating and availability for use as firewood--size, brood and other factors have influenced these recommendations. Thus trees, for which it is recommended that they be felled and the bark and branches burned, are accessible and large enough to pay for this care in the value of the firewood salvaged. It is not practicable to attempt to salvage firewood from small trees or from trees in relatively inaccessible places, and for these the burning of the entire tree is the disposal recommended. Two trees (30-8 and 30-13) contain but a small brood, both of them having been slowly killed by repeated attacks over a period of years. It may not pay to spend the time in reaching these trees or in treating them.

In cruising the area it soon became apparent that time is lost by cruising and marking trees in advance of treating operations as long as endemic conditions obtain. The physical features of the unit make a cruise too time-consuming for the results attained. Time and money would be saved by an organization of the treating operations so that the area could be cruised in connection with that work.

The information available in this area concerning type and progress of the infestation, development of broods, selection of hosts, efficiency of control operations and many other items, will be lost unless some records are kept by the treating crews. It is suggested that such information be collected. The standard tree form used by the Bureau of Entomology is a convenient form on which to note this information.

As the insect control work in this control district continues, it would appear to be a forward step to make permanent provisions for the future operation of the district. These provisions might take the form of the appointment of a community official, a community organization or some other supervisory group, under the direction of which the necessity for control work could be determined and the actual organization and execution of the project could be accomplished.

No recommendations have been made in this memorandum concerning the treatment of summer brood trees. When the fire hazard existing in this unit is considered, summer treatment by fire is extremely hazardous if not impossible. Solar heat control, however, is available as a method of treatment; though it is felt that at the present time the control district is not sufficiently organized to carry on this type of work; however, it will undoubtedly be necessary to recognize it if the project is to be successful. If, as or when a permanent control organization is developed, the treatment of summer brood trees should be undertaken.

LIST OF 1930 BEETLE BROOD TREES.
SAN JACINTO PROJECT, SAN BERNARDINO NATIONAL FOREST
OCTOBER 18-24, 1930

No.	D.B.H.	Species	Insect	Disposal Recommended
30--1	20	Jeffrey	Flat-head	Fell, burn entire tree
30--2	30	Coulter	W.P.Beetle	Fell,bark,burn bark and branches
30--3	28	"	"	do
30--4	26	"	"	do
30--5	32	"	"	do
30--6	34	"	"	do
30--7	16	"	Flat-head	do
30--8	24	"	"	Cut and burn entire tree (very light 1930 brood)
30--9	24	"	W.P.Beetle	Fell,bark,burn bark and branches
30-10	36	"	"	Fell, burn entire tree
30-11	24	"	"	do
30-12	24	"	"	Fell,bark,burn bark and branches
30-13	30	"	?	Inaccessible; may be left
30-15	19	"	W.P.Beetle	Fell, burn entire tree
30-17	24	"	Flat-head	Fell,bark,burn bark and branches (green base)
30-18	42	Yellow	"	Fell,bark,burn bark and branches
30-19	18	Coulter	"	do
30-20	22	"	"	Top-killed,nr.cabin,shd.be treated
30-21	26	Yellow	W.P.Beetle	Fell,bark,burn bark and branches
30-22	12	Jeffrey	Flat-head	Fell, burn entire tree
30-23	8	"	"	do
30-24	10	Yellow	W.P.Beetle	do
30-25	12	"	"	do
30-26	10	"	"	do
30-27	34	"	Flat-head	Fell,bark,burn bark and branches
30-28	24	"	W.P.Beetle	do
30-29	10	"	"	Fell, burn entire tree
30-30	6	"	"	do
30-31	8	"	"	do
30-32	26	Coulter	"	do
30-33	22	"	"	do
30-34	8	"	"	do
30-35	24	"	"	do
30-36	26	"	"	do
30-37	34	"	"	Fell,bark,burn bark and branches
30-38	32	"	"	do
30-39	28	"	"	do
30-40	18	Yellow	"	Fell, burn entire tree
30-41	16	Coulter	"	do
30-42	24	Yellow	"	Fell,bark,burn bark and branches
30-43	14	"	"	Fell, burn entire tree
30-44	34	"	Flat-head	Fell,bark,burn bark and branches

FOREST INSECT CONTROL

MEMORANDUM CONCERNING THE SAN JACINTO PROJECT

A cruise of the San Jacinto area was made from October 18 to 24, 1930, by Mr. Ed Nelander, representative of the State Department of Forestry, Ralph Kopenhaver, ranger on the San Jacinto District, San Bernardino National Forest, and the writer. The boundaries of a logical entomological unit, smaller than that declared a state insect control district by State Forester M.B. Pratt in August, 1928, were determined, and the infested trees within that area were spotted and marked for treatment during the winter of 1930 or the early spring of 1931.

Proposed Control District

Because of several difficulties that have entered into the administration of the extensive control district already declared, and because a smaller district is more feasible and practical, it is proposed that control activities be confined to the smaller area described below.

The proposed control area consists of a logical entomological unit, bounded on each side by barriers which from their nature should prove sufficient to inhibit any considerable spread of injurious bark beetles into the area under any but extreme epidemic conditions. Complete isolation is afforded on the south by a break in timber type. In Section 19, T 5 S, R 3 E, and along the boundary near that section, timber type extends over the ridge and is continuous, but so sparse as to offer little chance for any great amount of spread. In this area, as well as along the remainder of the east boundary of the unit, a ridge acts as a barrier. The north boundary of the unit is the margin of the yellow-Coulter-Jeffrey pine timber type, which follows approximately the 8,000-foot contour. From Section 36 T 4 S, R 2 E, the west boundary follows a ridge southwest through the Pine Cove Subdivision. There is no distinct break in the timber type along this boundary, but the ridge affords a degree of protection from infestations in areas outside the unit.

The attached map shows the area as proposed. The legal land units involved are the entire areas or parts of the following sections:

T 4 S, R 2 E, Sec. 26
T 4 S, R 3 E, (unsurveyed) location of Sections 31,32,33
T 5 S, R 2 E. Sections 1,2,11,12,13,14,23,24
T 5 S, R 3 E, " 4,5,6,7,8,9,17,18,19

The ownership status of the lands within this unit has not yet been worked out in detail. Several exchanges are in progress which will modify existing conditions, so that no attempt has been made to determine the exact amount of land held by the different owners.